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## International Association for Statistics Education



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**IASE Website** <http://www.stat.auckland.ac.nz/~iase>

### **SRTL-6: The Sixth International Research Forum on Statistical Reasoning, Thinking, and Literacy The Role of Context and Evidence in Informal Inferential Reasoning**

**University of Queensland, Australia, July 10-16, 2009**

The Sixth International Research Forum on Statistical Reasoning, Thinking and Literacy (SRTL-6) will be held in Brisbane, Australia from July 10 to July 16, 2009. The Forum is sponsored by The University of Queensland's Faculty of Social and Behavioural Sciences, The American Statistical Association (Section on Statistics Education), and Springer Publishers. The School of Education and School of

Mathematics and Physics at The University of Queensland will host the Forum.

The Forum's focus will build on the work presented and discussed at SRTL-5 on informal ideas of statistical inference. Recent research suggests an important role for developing ideas of informal types of statistical inference even at early educational levels. Researchers have developed instructional activities that encourage students to infer beyond samples of data and use technological tools to support these informal inferences.

The findings of these studies reveal that the context of the data and the use of evidence may be important factors to study further. The role of context is of particular interest because in drawing (informal) inferences from data, "students must learn to walk two fine lines. First, they must maintain a view of data

as 'numbers with a context' (Moore, 1992)." At the same time, "they must learn to see the data as separate in many ways from the real-world event they observed" (Konold & Higgins, 2003, p. 195). That is, they must abstract the data from that context. The role of evidence is also of particular interest because in learning how to make data-based claims (argumentation), students must consider the evidence used to support the claim, the quality and justification of the evidence, limitations of the evidence and finally, an indication of how convincing the argument is (Ben-Zvi, Gil, & Apel, 2007).

Based on SRTL-5, we characterize Informal Inferential Reasoning (IIR) as the cognitive activities involved in drawing conclusions with some degree of uncertainty that go beyond the data and having empirical evidence for them. Three principles appear to be essential to informal inference: (1) generalizations (including predictions, parameter estimates, and conclusions) that go beyond describing the given data; (2) the use of data as evidence for those generalizations; and (3) conclusions that express a degree of uncertainty, whether or not quantified, accounting for the variability or uncertainty that is unavoidable when generalizing beyond the immediate data to a population or a process (Makar & Rubin, 2007).

An exciting Scientific Program includes a keynote address by former IASE President Professor Chris Wild, nine extended presentations by internationally recognized researchers from four continents, an interdisciplinary discussant panel, four poster presentations from promising early career scholars, and a series of formal and informal small and whole group discussions. The extended presentations address the role of context and evidence when reasoning about informal inference from the Early Years through to Tertiary levels, including the professional development of teachers. We look forward to a stimulating and enriching gathering.

The Forum is co-chaired by Dani Ben-Zvi (University of Haifa, Israel) and Joan Garfield (University of Minnesota, USA), locally organized by Katie Makar and Michael Bulmer (The University of Queensland), and planned by a prestigious international advisory committee. Conference attendance, by invitation only, has now been finalized. For more information, visit the SRTL website at: <http://srtl.stat.auckland.ac.nz/> or email [SRTL2009@gmail.com](mailto:SRTL2009@gmail.com).

*Katie Makar*

## **Innovative Approaches to Turn Statistics into Knowledge**

**Washington, D.C, USA, 15-16 July 2009**

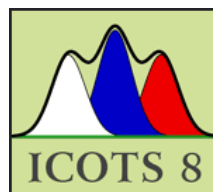
The OECD, the US Census Bureau and the World Bank are pleased to invite you to attend a jointly sponsored seminar on "Innovative Approaches to Turn Statistics into Knowledge" to be held on 15-16 July 2009 in Washington, D.C. The seminar builds on the progress made in the successful seminars held in 2007 and 2008 in Rome (Italy) and Stockholm (Sweden). As you can see in the attached outline, the seminar is about the art of making statistics understandable and appealing to modern audiences. Leading-edge products will be showcased. A review of technical solutions (e.g. Flash, video) are expected to be made and participants will have the opportunity to participate in discussions on how to select, develop and implement excellent solutions, as well as engaging and thought-provoking applications of statistics.

Recent years have seen a growing awareness worldwide of the importance of new techniques to communicate data and to interact with audiences. This is one of the themes of the Global Project on "Measuring the Progress of Societies". It is expected that the best outcomes of the workshop will flow through to inform the next OECD World Forum, 27-30 October

2009 in Busan, Korea, when a second international exhibition on Transforming Information into Knowledge is foreseen.

For more information visit a web page [www.oecd.org/progress/ict/statknowledge](http://www.oecd.org/progress/ict/statknowledge) or contact [Julie.branco-marinho@oecd.org](mailto:Julie.branco-marinho@oecd.org)

*Adapted by the Editors from the invitation letter*



**ICOTS 8**  
**Data and Context in**  
**Statistics Education:**  
**Towards an Evidence-**  
**Based Society**  
**Ljubljana, Slovenia, 11-16 July**  
**2010 [icots8.org](http://icots8.org)**

ICOTS is held every four years. Its main purpose is to give statistics educators and professionals around the world the opportunity to exchange information, ideas and experiences, to present recent innovation and research in the field of statistics education, and to expand their range of collaborators.

### **An Update**

Planning is moving ahead at a fast pace for what promises to be another successful international conference on statistics education. The ten invited paper topics are listed below. Each topic is divided into sessions. There are 75 sessions of three or four invited speakers. A total of 240 invited speakers from 34 countries have been confirmed to present in these sessions. Details of sessions, their organizers and the invited speakers can be viewed on the website ([icots8.org](http://icots8.org)).

### **Invited Paper Topics**

1. Data and context in statistics education: Towards an evidence-based society
2. Statistics education at the school level
3. Learning to teach statistics
4. Statistics education at the post secondary level
5. Assessment in statistics education
6. Statistics education, training and the workplace
7. Statistics education and the wider society
8. Research in statistics education
9. Technology in statistics education
10. An international perspective on statistics education

### **Contributed Papers**

Contributed paper sessions will be arranged in a variety of areas. Those interested in submitting a contributed paper should contact one of the three Convenors:

Flavia Jolliffe [F.Jolliffe@kent.ac.uk](mailto:F.Jolliffe@kent.ac.uk)  
 John McKenzie [mckenzie@babson.edu](mailto:mckenzie@babson.edu)  
 Gilberte Schuyten [gilberte.schuyten@ugent.be](mailto:gilberte.schuyten@ugent.be)

The authors of contributed papers can decide whether their paper should be refereed or not. If a contributed paper is to be refereed, an abstract should be submitted by 31<sup>st</sup> August 2009 with the final version of the paper due by 31<sup>st</sup> October 2009. If the contributed paper is not to be refereed, the abstract should be submitted by 30<sup>th</sup> November 2009 with the final version of the paper due by 15<sup>th</sup> December 2009.

### **Posters**

Those interested in submitting a poster should contact the poster Convenors:

Mojca Bavdaz [mojca.bavdaz@ef.uni-lj.si](mailto:mojca.bavdaz@ef.uni-lj.si)  
 Alesa Lotric Dolina [alesa.lotric.dolina@ef.uni-lj.si](mailto:alesa.lotric.dolina@ef.uni-lj.si)

The poster abstracts are due by 15<sup>th</sup> January 2010 with the abstracts to be finalised by 15<sup>th</sup> March 2010.

#### Keynote Speakers

I am happy to report that the keynote speakers are:

- Anuska Ferligoj, University of Ljubljana
- Gerd Gigerenzer, Max Planck Institute for Human Development
- Cliff Konold, University of Massachusetts
- Hans Rosling, Karolinske Institute
- Jessica Utts, University of California

There will also be a Plenary Panel Debate organised by Chris Wild, University of Auckland.

Abstracts for the plenary papers and the plenary debate can be viewed on the Conference website ([icots8.org](http://icots8.org)).

#### International Programme Committee Executive

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#### Local Organising Committee

Andrej Blejec (University of Ljubljana)

Chair [andrej.blejec@nib.si](mailto:andrej.blejec@nib.si)

Irena Krizman (Statistical Office of Slovenia)

Katja Rostohar (Agriculture Institute of Slovenia)

Irena Vipavc-Brvar (University of Ljubljana)

#### Venue

The 2010 Conference will be in the city of Ljubljana, Slovenia, in conjunction with the Statistical Society of Slovenia (SSS). It will be held at the Ljubljana Cultural and Congress Centre at Cankarjev Dom, a first-class conference venue providing many halls and meeting rooms and excellent facilities.

Due to its compact size, the capital city of Ljubljana is a walking and environmentally-friendly city. It has one of the best-preserved Baroque quarters in Europe that blends harmoniously with the younger Art Nouveau buildings. Bridges abound, and it is blessed with the talent of Joze Plecnik who created the cosmopolitan image of the city with his eclectic architecture.

Easily accessible from abroad and conveniently located in the centre of the country, Ljubljana is also an ideal departure point to discover all the amazingly diverse features of Slovenia. The unique Karst region, the Adriatic coast, the Alps and lakes region, the hilly wine-growing areas, the 15 natural spas and several historic towns are all within a two-hour drive.

If you go to the Conference website ([icots8.org](http://icots8.org)) and select the option *About Ljubljana* on the home page, you will be able to access a series of photos of Ljubljana and will be able to inspect Google Maps of the city, the country and the surrounding countries as well as locating three tourism links.

*John Harraway*

### 2009 IASE Satellite Conference Next Steps in Statistics Education 14-15 August 2009, Durban, South Africa

Continuing the successful tradition of satellite conferences coinciding with each ISI Session, the International Association for Statistics Education is pleased to announce that the sixth IASE Satellite Conference will be held in Durban, South Africa, on the 14<sup>th</sup> and 15<sup>th</sup> of August 2009. The IASE Satellite Conferences have proven to be a very popular component of the Statistics Education calendar. These Conferences are smaller and more personal in nature than the ICOTS conferences providing a wonderful opportunity for establishing new professional relationships and cementing existing ones. The format of this year's Conference will follow that of the 2007 Satellite Conference: plenary sessions will be supplemented by two parallel breakaway sessions. The theme of the Conference is Next Steps in Statistics Education. All submissions addressing this theme will be welcome. This theme has been chosen to particularly attract papers under the following headings:

1. What constitutes best practice for the curriculum beyond the "Introductory Statistics" course? What courses should follow on for those wishing to major in Statistics and what additional training should we offer to those in other disciplines?
2. What elements of our undergraduate curriculum specifically prepare our students for their careers post-graduation, either in the workplace or as masters/doctoral students? How can we improve these elements?
3. Since the 1949 formation of its precursor, the ISI Statistical Education Committee, the IASE has matured as an organisation. As we move towards ICOTS 8, we note that great progress has already been made in the field of Statistics Education, but the challenge we face now is to consider the next steps that we must take. How can we build on past progress to raise the profile of our field so that it becomes a more visible and vibrant pursuit?

We hope that you will be able to join us in Durban on the 14<sup>th</sup> and 15<sup>th</sup> of August 2009, so please put these dates in your diary.

For more information, visit the Conference website <http://www.sastat.org.za/iase/> or contact Patrick Murphy (Chair of the IASE Satellite Conference), School of Mathematical Sciences, University College Dublin, Belfield, Dublin 4, Ireland. Tel: +353-1-7167641, E-mail: [Patrick.Murphy@ucd.ie](mailto:Patrick.Murphy@ucd.ie)

*Adapted by the Editors from the IASE web page*

### IASE Sessions at the 57<sup>th</sup> Session of the International Statistical Institute 16-22 August 2009, Durban, South Africa

This is the main conference of the International Statistical Institute (ISI) and will be held in Durban, South Africa, 16-22 August 2009. As it does at each major ISI conference, the IASE will be organizing about 10 statistics education sessions for the 57<sup>th</sup> ISI Session. For more information, visit the Conference website <http://www.sastat.org.za/iase/>.

## Looking forward to the ISIBALO International Statistical Literacy Competition, August 20, 2009.

The Statistical Literacy Competition of the ISLP has reached an end in most countries. You may see the names of the winners, their schools, teachers, and national committees in the front page of the ISLP web site at <http://www.stat.auckland.ac.nz/~iase/islp/>. More details can be found by clicking on the country's name in that list.

Phase 2 was entirely managed by the national committees to select the students who will represent their countries in South Africa's ISIBALO International Statistical Literacy Competition. While each committee has managed its competition autonomously, in its own creative way and with country specific exams, all have shared the same high standards and similar contents for the 5 levels of students tested. We thank all the volunteers that made the event possible. They are too many to list here, but they can be seen in our web site. The IASE and ISI contributed some prizes for the students. What now? National Committees are working to raise funds to support the travel of students and teachers to Durban to participate in the ISIBALO International Statistical Literacy Competition on August 20<sup>th</sup> and events organized around it.

### Nominations Received for the Best Cooperative Project Award in Statistical Literacy

The ISLP has received 4 nominations for the Best Cooperative Project Award. They are:

- “EarlyStatistics: Enhancing the Teaching and Learning of Early Statistical Reasoning in European Schools” (Cyprus)
- “New Zealand Certificate on Official Statistics” (New Zealand)
- “Statistics for School:E-school” of Statistics Lithuania (Lithuania)

- “Maths4stats project of Statistics South Africa” (South Africa)

A panel of international judges evaluated these projects and selected a winner. From June 1<sup>st</sup>, all the materials in support of the projects, including their Internet locations, were made available on our ISLP website. Voting was open to all via the website. The popular vote was taken into account by the judges in the final selection.

### ISLP Lottery

The ISLP is holding a lottery to help raise funds to defray the costs of traveling and many other expenses of the students and teachers participating in the ISIBALO International Statistical Literacy Competition.

Items for prizes include:

**(1st prize)** A one night hotel stay in South Africa during the ISI meeting. <http://www.statssa.gov.za/isi2009/default.aspx>

**(2nd prize)** One day safari in South Africa during the ISI meeting.

**(3rd prize)** Dinner for two at a fancy restaurant in Durban during the ISI meeting.

**(4th-100th prizes)** Zulu jewellery from Kwazulu Natal, Fashion designers' donated garments and accessories, ipods, graphics calculators, computers, software, art pieces, origami decorations, and many other items donated by friends of the ISLP.

We welcome donations for other prizes.

The draw for prizes took place on July 16<sup>th</sup>, 2009.

To participate, visit the ISLP website:

<http://www.stat.auckland.ac.nz/~iase/islp/>

*Juana Sanchez  
International Statistical Literacy Project*